encoded) and (chromosome\$2 NEAR US-FGPUB; DERMENT; USOCR USPAT;	amn
encoded) and (chromosome\$2 NEAR mammal\$10 US-PCFUB; EPO; JPO; DERMENT; USOCR USPAT; US-PCFUB; EPO; JPO; DERMENT; USOCR USPAT; US-PCFUB; EPO; JPO; DERMENT; USPAT; US-PCFUB; EPO; JPO; DERMENT; USPAT;	/17 14:18
mammal\$10 EPO; JPO; DERMENT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT; USOC	
17	
17 ((group ADJ I ADJ Intron)or (intron ADJ encoded)) and I-scel\$5 USPEQUE, EPO; JPO; DERWENT; Encoded)) and I-scel\$5 USPEQUE, EPO; JPO; DERWENT; USCR USPAT; I-cre\$2 I-tev\$2) and (eukaryo\$5 animal\$2	
encoded) and I-scel\$5	
PEPC, JPC; DERMENT; USOCR USPAT; USPAT; USOCR USPAT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USPAT; USOCR USP	/22 13:58
DERWENT; USCCR USPAT; US-PGPUB; EPO; JPO; DERWENT; USCR USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT	
SOCR USPAT; USOCR USPAT; USPA	
- 90 (I-SCR\$2 I-CSW\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EFO; JPO; DERWENT; USOR USPAT; US-PGPUB; EFO; JPO; DERWENT; US-PGPUB; EFO; JPO;	
I-cre\$2 I-tev\$2) and (eukaryo\$5 animal\$2 US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USP	/17 14:19
DERWENT; USOCR USPAT; USOCR U	
380	
- 380 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 USPAT; US-PGPUB; EPO; JPO; DERWENT; USCOR USPAT; US-PGPUB; EPO; JPO; DERWENT; USCOR USPAT; USCAR USPAT; USCA	
I-tev\$2	/05 10 0T
Company	/05 19:2/
- 49 (I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 USPAT; USCR USCR USCR USCR USCR USCR USCR USCR	
1	
I-tev\$2) and (eukaryo\$5 animal\$2 mammal\$5) US-PGPUB; EPO; JPO; DERWENT; USCCR USPAT; USCR USCR USCR USCR USCR USCR USCAT; US-PGPUB; EPO; JPO; DERWENT; USCR USCR USCR USCAT; US-PGPUB; EPO; JPO; DERWENT; USCR USCAT; USC	
The content of the	/28 14:48
DERWENT; USOCR USPAT; USOCR USPAT; USPAT; USOCR USPAT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USPAT; USPAT; USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USPAT; USOCR USPAT; U	
USOR	
- 48 (I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	
I-tev\$2) and (homo\$5 recomb\$5)	/05 19:40
DERWENT; USOCR	00 231.10
The state of the	
Tev\$2 Tev\$	
T-tev\$2).clm.	
EPO; JPO; DERWENT; USOCR USPAT;	705 19:34
DERWENT; USOCR USPAT; USOCR USP	
- 2 wo NEAR "9614408" - 2 wo NEAR "9614408" - 87 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; USOCR - 44 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USOCR USPAT; USPAT; USOCR USPAT;	
US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USPAT; USOCR US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USPAT; USOCR USOC	
B7	/05 19:38
- 87 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	
- 87 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	
- 87 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	
I-cre\$2 I-tev\$2) and (homo\$5 recomb\$5) US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USPAT; USOCR USOCR USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	/04 16:18
- 44 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; USOCR USPAT; USOC	
- 44 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	
- 44 (I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	
I-cre\$2 I-tev\$2) NEAR site US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; USOCR USPAT; I-cre\$2 I-tev\$2) NEAR site) and Chromosome US-PGPUB; EPO; JPO; DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	/11 12.25
- 35 ((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; USOCR USPAT; I-cre\$2 I-tev\$2) NEAR site) and chromosome EPO; JPO; DERWENT; DERWENT;	11 13:35
DERWENT; USOCR USPAT; I-cre\$2 I-tev\$2) NEAR site) and chromosome DERWENT; USOCR USPAT; US-PGPUB; EPO; JPO; DERWENT;	
- 35 ((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT;	
I-cre\$2 I-tev\$2) NEAR site) and US-PGPUB; chromosome EPO; JPO; DERWENT;	
chromosome EPO; JPO; DERWENT;	/11 13:37
DERWENT;	
- 8 ((I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 USPAT; 2003/03	/11 13:40
I-cre\$2 I-tev\$2) NEAR site) and (mammal\$5 US-PGPUB;	
NEAR chromosome) EPO; JPO;	
DERWENT; USOCR	
	11 13:40
I-cre\$2 I-tev\$2) NEAR site) SAME US-PGPUB;	
(mammal\$5 NEAR chromosome) EPO; JPO;	
DERWENT;	
USOCR USOCR - 6 (I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 USPAT; 2003/03	28 14:48
I-tev\$2) SAME (eukaryo\$5 animal\$2 US-PGPUB;	20 14:48
mammal\$5)	
DERWENT;	ŀ
USOCR	

				, -
-	543	(group ADJ I ADJ Intron)or (intron ADJ encoded)	USPAT; US-PGPUB;	2003/04/04 16:12
		oneouda)	EPO; JPO;	
			DERWENT;	
_	178	((group ADJ I ADJ Intron)or (intron ADJ	USOCR USPAT;	2003/04/04 16:12
-	1/0	encoded)) and transgenic	US-PGPUB;	2003/04/04 10:12
		,, ,	EPO; JPO;	
			DERWENT;	
_	450	 I-SCE\$2	USOCR USPAT;	2003/04/04 16:18
	130	I-cre\$2 I-tev\$2	US-PGPUB;	2003/04/04 10:10
			EPO; JPO;	
			DERWENT;	
_	55	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USOCR USPAT;	2003/04/04 16:14
		I-cre\$2 I-tev\$2) and transgenic	US-PGPUB;	
		•	EPO; JPO;	
			DERWENT; USOCR	
_	9	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/04/04 16:14
		I-cre\$2 I-tev\$2) and transgenic.clm.	US-PGPUB;	
			EPO; JPO;	
			DERWENT; USOCR	
_	9	DUJON NEAR BERNARD	USPAT;	2003/04/04 16:17
			US-PGPUB;	
			EPO; JPO; DERWENT;	
			USOCR	
-	39	'	USPAT;	2003/04/04 16:28
		I-cre\$2 I-tev\$2) WITH cell	US-PGPUB;	
			EPO; JPO; DERWENT;	
1			USOCR	,
-	44		USPAT;	2003/04/04 16:48
		I-cre\$2 I-tev\$2) WITH (eukaryotic mammalian cell)	US-PGPUB; EPO; JPO;	
]		mananarran cerry	DERWENT;	
			USOCR	
-	15	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2 I-cre\$2 I-tev\$2) WITH mouse	USPAT; US-PGPUB;	2003/04/04 16:50
	-	I-Clev2 I-Cev42) Will modse	EPO; JPO;	
			DERWENT;	
	10	DILION DEDUZDO	USOCR	0000/10/27 14-17
-	12	DUJON-BERNARD	USPAT; US-PGPUB;	2003/12/17 14:17
			EPO; JPO;	
			DERWENT;	
_	82	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USOCR USPAT;	2003/12/17 14:19
		I-cre\$2 I-tev\$2) AND transgenic	US-PGPUB;	2000, 22, 1, 14,19
		· -	EPO; JPO;	
			DERWENT; USOCR	
	55	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/12/17 14:20
		I-cre\$2 I-tev\$2) AND transgenic SAME mouse	US-PGPUB;	
			EPO; JPO;	
			DERWENT; USOCR	
-	6	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/12/17 14:20
		I-cre\$2 I-tev\$2) AND transgenic SAME	US-PGPUB;	
		mouse.clm.	EPO; JPO; DERWENT;	
			USOCR	
-	14	(US-5948678-\$ or US-5866361-\$ or	USPAT;	2003/12/17 15:07
		US-5792632-\$ or US-6238924-\$ or US-5962327-\$ or US-5474896-\$ or	EPO; DERWENT	
		US-5792633-\$ or US-5420032-\$ or	2577/41/01/47	
		US-6395959-\$ or US-5830729-\$ or		
		US-6566579-\$).did. or (WO-9614408-\$ or WO-2074965-\$).did. or (US-5792632-\$).did.		
Ll	i	(10/02 C 07 00 PM P 2	<u> </u>	

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(FILE 'HOME' ENTERED AT 18:16:38 ON 18 DEC 2003)
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FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, MEDICONF' ENTERED AT 18:17:15 ON 18 DEC 2003

- L1 3087 S I-SCE? OR I-CSM? OR I-PAN? OR I-CEU? OR I-PPO? OR I-CRE? OR I
- L2 72 S L1 AND TRANSGENIC
- L3 39 DUP REM L2 (33 DUPLICATES REMOVED)
- L4 39 SORT L3 PY
- L5 181965 S TRANSGENIC?
- L6 57 S L1 (L) L5
- L7 26 DUP REM L6 (31 DUPLICATES REMOVED)
- 18 8 S L7 AND MOUSE
- L9 8 SORT L8 PY
- L10 26 SORT L7 PY
 - E BERNARD D?/AU
 - E BERNARD DU?/AU
 - E BERNARD D?/AU
- => d an ti so au ab pi 110 21 12 9 25
- L10 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 2002:403935 CAPLUS
- DN 136:396983
- TI Nucleotide sequence encoding yeast restriction endonuclease I-SceI and uses in genetic mapping and site-directed gene recombination
- SO U.S., 84 pp., Cont.-in-part of U.S. 5,792,632. CODEN: USXXAM
- IN Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-Francois
- AB The present invention relates to an isolated yeast DNA encoding the restriction endonuclease I-SceI, and use of I
 -SceI for mapping eukaryotic genomes and for in vivo site
 - directed genetic recombination. Specifically, the invention relates to a vector comprising a plasmid, bacteriophage, or cosmid vector contg. the DNA sequence of the enzyme I-SceI. The invention also
 - relates to E. coli, eukaryotic cells transformed with a vector of the invention, transgenic animal with the DNA sequence encoding
 - I-SceI. The invention relates to a transgenic
 - organism in which at least one restriction site for the enzyme I -SceI has been inserted in a chromosome of the organism. The

invention further relates to methods for gene mapping in yeast chromosome, yeast artificial chromosome, and cosmids, and site-directed insertion of genes.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	US 6395959	B1	20020528	US 1996-643732	19960506
	US 5474896	Α	19951212	US 1992-971160	19921105
	US 5792632	Α	19980811	US 1994-336241	19941107
	US 2003182670	A1	20030925	US 2002-152994	20020523

- L10 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 1998:545391 CAPLUS
- DN 129:172448
- TI Cloning and expression of gene for restriction endonuclease I-SceI of Saccharomyces cerevisiae and use of I-SceI
- SO U.S., 79 pp., Cont.-in-part of U.S. 5,474,896. CODEN: USXXAM
- IN Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-francois
- AB A mitochondrial gene encoding restriction endonuclease ISceI of Saccharomyces cerevisiae and a synthetic universal code
 encoding I-SceI for the expression in Escherichia coli
 and yeast are provided. Applications of I-SceI for
 genetically mapping yeast chromosomes by the nested chromosomal
 fragmentation strategy, inducing double stranded DNA break, and in vivo
 site-directed insertion of genes and homologous recombination in
 eukaryotes are also described. It may also be used for prepg.
 transgenic animal models of human diseases and genetic disorders.
 PATENT NO. KIND DATE APPLICATION NO. DATE

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US 5792632
                    A 19980811
                                         US 1994-336241
                                                         19941107
PΙ
    US 5474896
                    A
                          19951212
                                         US 1992-971160
                                                         19921105
                                         US 1995-465273
    US 5866361
                     Α
                          19990202
                                                         19950605
                                         CA 1995-2203569 19951106
                     AA 19960517
    CA 2203569
    WO 9614408
                     A2
                          19960517
                                         WO 1995-EP4351 19951106
    WO 9614408
                     A3 19960829
        W: CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    EP 791058
                     A1 19970827
                                        EP 1995-938418 19951106
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
                         19980825
                                         JP 1995-515058 19951106
    JP 10508478
                      T2
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                                         US 1996-643732
    US 6395959
                          20020528
                                                         19960506
    US 5948678
                      A.
                          19990907
                                         US 1998-119024
                                                         19980720
    US 2003182670
                     A1
                          20030925
                                         US 2002-152994
                                                         20020523
L10 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
AN
    1996:428575 CAPLUS
DN
    125:107019
TI
    Nucleotide sequence encoding yeast enzyme I-SceI and
    its use in inducing homologous recombination in eukaryotic cells and
    protein production in transgenic animals
SO
    PCT Int. Appl., 122 pp.
    CODEN: PIXXD2
    Choulika, Andre; Perrin, Arnaud; Dujon, Bernard; Nicolas, Jean-Francois
IN
AΒ
    Synthetic DNA encoding the enzyme I-SceI is provided.
```

The DNA sequence can be incorporated in cloning and expression vectors, transformed cell lines and transgenic animals. The vectors are useful in gene mapping and site-directed insertion of genes. A synthetic gene encoding Saccharomyces cerevisiae I-SceI restriction endonuclease was expressed in Escherichia coli and yeast. The enzyme was used in genetic mapping of a yeast chromosome, of YAC's, and of cosmids. I-SceI efficiently induced double-stranded

breaks in a chromosomal target in mammalian cells and the breaks were repaired using a donor mol. that shares homol. with the regions flanking the break.

	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	WO 9614408	A2 19960517	WO 1995-EP4351	19951106
	WO 9614408	A3 19960829		
	W: CA, JP			
	RW: AT, BE,	CH, DE, DK, ES, FR,	GB, GR, IE, IT, LU	, MC, NL, PT, SE
	US 5792632	A 19980811	US 1994-336241	19941107
	EP 791058	A1 19970827	EP 1995-938418	19951106
	R: AT, BE,	CH, DE, DK, ES, FR,	GB, GR, IE, IT, LI	, LU, MC, NL, PT, SE
	JP 10508478	T2 19980825	.TD 1995-515058	19951106

- L10 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 2003:242490 CAPLUS
- DN 138:266837
- TI in situ formation of linear DNA for random integration into a host genome by linearization of circular DNA
- SO PCT Int. Appl., 88 pp. CODEN: PIXXD2
- IN Choulika, Andre; Joly, Jean-Stephane; Thermes, Violette; Ristoratore, Filomena
- AB A method for in vivo generation of a linear polynucleotide with free 5'and 3'- ends from a circular vector that can integrate at random into a
 host genome is described. The vector contains a specific cleavage site
 for linearization that is either extremely rare or not found in the genome
 of the target cell, specifically, a cleavage site for a meganuclease. The
 meganuclease may be introduced into the cell by methods such as direct
 injection of the enzyme or its RNA or by introduction of the gene on an
 expression vector. The mutagenic sequence and the meganuclease gene may
 be on sep. vectors. The linear DNA is mutagenic and can be used to
 develop cells with new properties and uses, for example for prodn. of
 proteins or other genes, biomols., biomaterials, transgenic
 plants, vaccines, transgenic animals or for treatment or
 prophylaxis of a condition or disorder in an individual. The method is
 demonstrated in cultured animal cells. A plasmid carrying a green
 fluorescent protein reporter gene under control of a muscle-specific

promoter and flanked by two I-SceI cleavage sites was coinjected with I-SceI nuclease into eggs of Oryzias latipas. The fish from eggs treated in this manner showed expression of the reporter gene throughout the trunk musculature. In control expts. with circular DNA only or an expression construct linearized in vitro, expression was, missing, weak or sporadic. Efficiency of transmission of the transforming DNA was dependent on the copy no. of the transforming DNA in the founder cells. The.

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KIND DATE
     PATENT NO.
                                              APPLICATION NO. DATE
PΙ
     WO 2003025183 A2
                              20030327
                                              WO 2002-EP10224 20020912
     WO 2003025183
                       A3
                              20030828
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
              PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
                              20030605
                                           US 2002-242664
     US 2003106077
                        A1
                                                                20020913
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